

REMARKS

Upon entry of the present amendment, claims 1-31, 33, 34, 36, 37, 45, and 47-64 will be pending. Claims 12, 14, 15, 17, 19, 21, 23, 30, 33, 34, 36, and 45 have been amended, and new claims 51-64 are herewith submitted.

Appendix A includes, for the Examiner's convenience, a complete listing of all currently pending claims, marked to show changes made in the present amendment.

The Examiner has objected to claims 30, 31, and 33 for the use of the term "interposed." Accordingly claims 30 and 33 have been amended to insert the term "between" after "interposed," as suggested by the Examiner.

Claims 12-22 have been rejected under 35 USC §112 first and second paragraphs. The language indicated by the Examiner as lacking support in the specification has been removed from claims 12 and 22. Accordingly, claims 12-22 are now in condition for allowance under 35 USC §112.

Claim Rejections 35 USC §102

Claims 12 and 19-21 have been rejected under 35 USC §102(b) as being anticipated by French Publication 1.069.862 (hereafter FP '862).

Amended claim 12 recites, in part, "a plunger assembly configured to maintain the blade in the extended position while the blade is in the extended position, and to retain the blade in the retracted position while the blade is in the retracted position..." Support for this amendment may be found in the amended specification in the paragraph beginning at line 9 of page 9.

FP '862 fails to teach at least this limitation of claim 12. The features of FP '862 cited by the Examiner as being analogous to the plunger assembly of claim 12 do not fulfill the functions recited. In the first embodiment of FP '862, shown in Figures 1-6, the features cited by the examiner merely serve to move the decorative panel, 13 as the blade is moved. Instead, a laterally flexing frame member 6 holds the blade 5 in the open or closed positions while the blade is positioned therein, in a manner well known in the art. The second embodiment, shown in Figures 7-11, provides first and second implements 19 and 20, each having a biased spring 21,

22 configured to apply a constant opening bias to the respective element. The features cited by the Examiner do not retain the blade in the retracted position while the blade is in the retracted position. Instead, latches 23, 24 hold the respective elements in their closed positions. Clearly, claim 12 is allowable over FP '862. Dependent claims 13-22 are thus also allowable over FP '862.

Claims 23, 29, and 45 are rejected under 35 USC §102(b) as being anticipated by Brown (1,864,011, hereafter Brown).

Claim 23 recites, in part, "a plunger including a spring, the plunger pivotally connected to the blade..." In rejecting claim 23, the Examiner cites Brown's pin 11 as being analogous to the pivotal connection of claim 23. Applicant respectfully traverses this position. While both Brown's side plates 3 and blade 1 engage the pin 11, the pin 11 is rigidly fixed to the face plates 9 while both the blade and the side plates 3 move freely on the pin 11 without directly influencing each other via the pin 11 (see, for example, page 2, lines 13-24). Thus, there is neither a direct physical connection, nor a functional or operational connection between Brown's side plates 3 and blade 1 via the pin 11. In contrast, Brown does provide a functional connection between the side plates 3 and the blade 1 via the pin 13. Movement of Brown's blade toward the open position, for example, causes the pin 13 to move longitudinally through the slot 14 of the blade, setting up a cam action, which causes the side plates 3 to extend. Thus, in contrast to claim 23, which recites a plunger *pivotally* connected to the blade, Brown teaches side plates connected via a cam connection. Clearly, Brown fails to teach all the limitations of claim 23, which is thus allowable thereover together with dependent claims 24-29.

Claim 45 recites, in part, "a plunger, including a spring, coupled between the handle and the blade such that a portion of the plunger remains a fixed distance from the blade pivot point ..." Brown fails to teach at least this limitation of claim 45. Brown's side plates 3 are coupled to the blade 1 via pin 13, which is configured to travel in the slot 14 as the blade is moved between the open and closed positions. Because of the shape and position of the slot 14, rotation of the blade 1 causes the pin 13, and hence the end portion of the side plate 3 to move toward the pivot point 11 of the blade 1. Accordingly, no portion of Brown's side plate remains

a fixed distance from the pivot point of the blade. This is in direct contrast to the above-cited limitation of claim 45. Clearly, claim 45 is allowable over Brown.

Claim Rejections 35 USC §103

The Examiner has rejected claim 13 under 35 USC §103(a) as being unpatentable over FP '862 in view of Thompson et al. (5,131,149, hereafter Thompson).

A combination of Thompson with FP '862 is inappropriate. As may be best seen in Thompson's figure 8, the tang end of the blade 28 extends further along a longitudinal line of the blade than on either side, laterally. This permits the blade to be securely locked by the sliding handle 10 while in the open or closed position. At the same time, the extended portion of the tang provides an effective leverage for a user's finger as the blade is rotated between the open and closed position.

For it's part, FP '862 includes two basic embodiments. The first embodiment, as pictures in figures 1-6, employs a frame member 6 with an upper portion beyond a narrowed region that is configured to flex outward as the blade 5 is rotated from the open to the closed position, applying pressure to the tang end of the blade and holding it in the opened or closed position. Such a configuration is well known in the art. The second embodiment, pictured in figures 7-11, includes first and second implements 19 and 20, each having a biased spring 21, 22 configured to apply a constant opening bias to the respective element. Latches 23, 24 hold the respective elements in their closed positions.

The Examiner has argued that it would be obvious to combine Thompson's tang having the ribs 30 with FP '862. However, such a combination would render FP '862 inoperative for its intended purpose. The extended tang of Thompson would interfere with the operation of the frame member 6 as it applies a bias to the blade 5. Even if the extended tang were shorted to prevent jamming against the frame number 6, the ribs 30 would sequentially engage the frame member 6 as they passed over, preventing proper operation of the mechanism. If Thompson's tang were combined with the second embodiment of FP '862, the extended tang of one implement would jam against the neighboring implement, preventing its proper operation. Further, because of the presence of the back-to-back implements 19, 20 of FP '862, it would not

be possible to have the tang extend beyond the handle for ease of access, as shown in Thompson's figure 8. Clearly, Thompson cannot be combined with FP '862 as suggested by the Examiner. Thus, claim 13 is allowable on its own merits apart from its dependence on an allowable base claim.

Claim 24 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown in view of Thompson. Such a combination, for the purpose of rejecting claim 24, is improper, inasmuch as it would render Brown inoperative for its intended purpose. Referring to Brown's Figure 1, it may be seen that the tang 2 of the blade 1 has an arcuate shape describing approximately 270° of a circle. The blade 1 pivots on pin 11 as it rotates between the open and closed positions. It may also be seen that pin 12 is positioned very close to the edge of the tang 2 for proper operation of the side plates 3. Additionally, the blade point of the opposing blade 1 is positioned very close to the tang 2 of the first blade, and lies in the same plane thereof. If Brown's knife were provided with an extended tang as taught by Thompson, the extended portion of the tang would engage both the point of the opposing blade 1 and the pin 12 as the blade rotated between the open and closed positions. This would prevent proper operation of Brown's knife. Nor would it be appropriate to merely import the ribs 30 of Thompson's tang to Brown's knife, inasmuch as Thompson includes the extended tang as an essential portion of its one-handed opening mechanism. Thus, a combination of Thompson with Brown is inappropriate for the purpose of rejecting claim 24. Accordingly, claim 24 is allowable on its own merits apart from its allowability as depending from an allowable base claim.

The Examiner has rejected claims 34 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Brown.

Amended claim 34 recites, in part, "an elongate, force-transmitting biasing spring having an effective length, the spring operatively attached between said blade and said handle...." Brown fails to teach at least the cited limitation of claim 34. In contrast to the limitation of claim 34, Brown's side plates 3, including spring portions 8, are operatively connected to the opposing blades via pins 13. There is no physical or functional connection between the side plates 3 and the handle, *i.e.*, face plates 9. Additionally, Brown's knife could not operate as designed if the side plates 3 were connected to the handle, since both ends of the

side plates must be free to move as the respective blade is rotated between the open and closed positions. Clearly, Brown fails to teach or suggest all the limitations of claim 34, which is thus allowable thereover, together with dependent claims 36, 37, and 51.

Recapture

The Examiner has rejected claims 12-31, 33, 34, 36, 37, 45, and 47-50 under 35 U.S.C. § 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. The Examiner states,

The record of the application for the patent shows that the broadening aspects (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. For example, none of claims 12-31, 33, 34, 36, 37, 45 and 47-50 have limitations directed to the key limitations added or argued in the original application to define over the prior art; specifically, the key limitations of the pivotal connector or the sleeve.... Thus, these claims have the same or broader scope as compared to original claims 1 and 11 of the parent application.

Applicant respectfully traverses the Examiner's characterization of limitations added or argued in the original application to define over the art.

A review of the file history of the parent application reveals that most of the amendments provided therein were made for the purpose of resolving issues related to 35 U.S.C. § 112. The only amendment that appears to have been made to overcome prior art is described in an interview summary (paper number 9), in which the Examiner states:

The proposed language would include a limitation describing the plunger as being slidably carried by the pivotal connector. Mr. Dexter stated that such an amendment appeared to distinguish the present amendment over the French Patent '740.

It may be seen that the amendment did not add a limitation to claim 1, but merely recited a relationship between two existing limitations: the pivotal connector and the plunger.

Attached herebelow is the text of claim 1 as it appeared in the original patent, and marked as follows: Language added to the claim by amendment is underlined, language deleted from the claim by amendment is shown with a ~~striketrough line~~, and the language referred to in the interview summary as distinguishing over the prior art is shown in *italics*.

1. A folding knife, comprising:

a handle defining a blade cavity and a first end;

a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for ~~allowing~~ pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity;

a longitudinally extending ~~spring-biased~~ plunger carried in said blade cavity having a first end and second end opposite said first end ~~said first end of said plunger including~~;

a pivotal connector pivotaly connected to said handle for pivotally connecting said plunger to said handle, said first end of said plunger being longitudinally slidably carried by said pivotal connector for longitudinal movement of said plunger relative to said pivotal connector as said blade moves between said retracted and extended positions; and

said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.

Referring to the text of claim 1 as clarified above, it may be seen that the plunger was originally recited as a spring biased plunger...including a pivotal connector. Thus, in the original claim, one of the two elements later narrowed by amendment to overcome prior art was part of the other one of the two elements amended. Furthermore, the changes to the amendment that resulted in separating these elements into two elements were made for reasons not related to overcoming prior art. Accordingly, the scope surrendered by the applicants is related only to the plunger (or a corresponding element) being coupled in some way to the handle, and may even be less than stated here.

MPEP § 1412.02 states,

If the reissue claim recites a broader form of the key limitation added/argued during original prosecution to overcome an art rejection (and therefore not entirely removing that key limitation), then the reissue claim may not be rejected under the recapture doctrine.

(Paragraph C, *i.e.*, the third step, fifth subparagraph).

There is clearly no requirement that there be separate elements corresponding to the pivotal connector and the plunger, nor that a slidable relationship be recited. Furthermore, the element corresponding to the plunger can be recited in broader terms without violating the recapture rule.

Claim 12 recites, in part:

a plunger assembly configured to maintain the blade in the extended position while the blade is in the extended position, and to retain the blade in the retracted position while the blade is in the retracted position, the plunger assembly having:

a first end slidably and pivotably connected to said handle for longitudinal and/or pivotal movement of said plunger assembly relative to said handle....

It may be seen that claim 12 recites an element corresponding to the key limitation of the plunger and further recites a connection between that element and the handle. Additionally, claim 12 is narrowed in several aspects, as compared to claim 1. Accordingly, there is no impermissible recapture.

Claim 23 recites, in part, "a plunger including a spring, the plunger pivotally connected to the blade at a first end, and operatively coupled to the handle at a second end...." Clearly, claim 23 includes an element corresponding to the plunger of claim 1, and further recites an operative connection between that element and the handle. Additionally, aspects of the plunger limitation of claim 23 are narrower than the plunger of claim 1 as recited in the original patent. Accordingly, claim 23 is allowable in view of the recapture rule.

Claim 30 recites, in part, "a plunger...interposed between said handle and said blade...." Claim 33 recites, "an elongate, force-transmitting biasing spring operatively interposed between said handle and said blade...." Claim 34 recites, in part, "an elongate force-transmitting biasing spring having an effective length, the spring operatively attached between said blade and said handle...." Claim 45 recites, in part, "a plunger including a spring, coupled between the handle and the blade...." Claim 47 recites, in part, "a spring operatively interconnecting the blade to the handle, ... a plunger operatively interconnecting the spring to the blade...." Claim 48 recites, in part, "a spring movably held in the handle...wherein the spring is operatively connected to the blade...."

It may be seen, as outlined above, that each of claims 30, 33, 34, 45, 47, and 48 includes an element corresponding to the plunger of claim 1, and further includes an operative connection between that element and the handle. Additionally, each of those claims recites limitations that are either narrower than corresponding limitations of claim 1, or are not found in claim 1. For at least these reasons, there is no violation of the recapture rule in these claims. Inasmuch any dependent claim is to be construed as including the limitations of the base claim, all the claims depending from independent claims 12, 23, 30, 33, 34, 45, 47, and 48 comply with the recapture rule, as well.

New claims

New claim 51 is submitted as a dependent claim of claim 34, and is fully supported by the specification.

New independent claim 52 and dependent claims 53 and 54 are fully supported by the specification. For example, Figures 4A-4C illustrate the folding knife 10 with the blade B extended at various angles, showing the relative compression of the spring 90. One having ordinary skill in the art would recognize that the embodiment shown in Figures 4A-4C discloses a biasing means as claimed in claim 11.

Referring to Figures 5A-5C, an example of the moving means recited in claim 52 is also illustrated. Further support for claims 52-54 may be found in the specification beginning at page 9, line 9, and extending through page 11, line 8.

Support in the specification for new independent claims 55, 58, 62, 63, and 64, together with their respective dependent claims, may be found in the same passages and figures cited above with reference to claim 55. A review of these independent claims will also show that each claim recites an element corresponding to the plunger of claim 1 and further recites an operative connection between that element and the handle of the respective claim. Accordingly, each of these claims, together with their dependent claims, is allowable under the recapture rule.

Claim Rejections - Defective Oath/Declaration

Claims 1-31, 33, 34, 36, 37, 45 and 47-50 have been rejected under 35 U.S.C. § 251 as being based upon a defective reissue declaration. Applicant respectfully requests that this rejection be held in abeyance to be addressed by the applicant in a future submission.

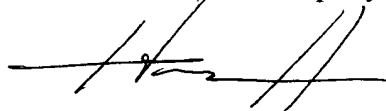
Conclusion

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicants' undersigned representative at (206) 694-4848 in order to expeditiously resolve prosecution of this application.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

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Enclosures:

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Extension of Time
Appendix A

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Appendix A

Complete list of pending claims, showing changes made in the present amendment.

1. A folding knife, comprising:
 - a handle defining a blade cavity and a first end;
 - a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity;
 - a longitudinally extending plunger carried in said blade cavity having a first end and second end opposite said first end;
 - a pivotal connector pivotally connected to said handle for pivotally connecting said plunger to said handle, said first end of said plunger being longitudinally slidably carried by said pivotal connector for longitudinal movement of said plunger relative to said pivotal connector as said blade moves between said retracted and extended positions; and
 - said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.
2. A folding knife as defined in claim 1, wherein said blade includes said first end of said blade having an extension projecting outwardly from said handle when said blade is in said retracted position; said extension defining an extreme edge portion with a plurality of ridges thereon for contact by a user when moving the blade from said retracted position to said extended position.
3. A folding knife as defined in claim 2, wherein said plurality of ridges are generally saw-tooth-shaped and are generally angled in a direction

substantially opposite to the direction said second end of said blade moves when moving from said retracted position to said extended position.

4. A knife as set forth in claim 1, further comprising a safety member pivotally connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into said blade cavity and in the path of movement of said first end of the plunger when said safety member is in said locking position for contacting and restraining movement of said first end of said plunger when said blade is in said extended position, to thereby lock said blade in said extended position.

5. A knife as defined in claim 1, further comprising said handle defining a first side and a second side opposite said first side and a belt clip connected to said handle adjacent one of said first and second sides of said handle.

6. A knife as defined in claim 1, wherein said pivotal connector includes a sleeve having a passageway, and wherein said first end of said plunger extends through said passageway such that said first end of said plunger moves substantially rectilinearly in said passageway during said longitudinal movement of said plunger as said blade is moved between said retracted and extended positions.

7. A folding knife as defined in claim 1, wherein said pivotal connector is a sleeve having diametrically opposed pivot pins attached thereto, said pivot pins pivotally connecting said pivotal connector within said handle.

8. A folding knife as set forth in claim 1, wherein said second end of said plunger includes a clevis having a pin pivotally connected to said first end of said blade.

9. A folding knife as defined in claim 1, wherein said first end of said blade includes an arcuate slot and wherein said handle includes a pin carried in said

arcuate slot, said arcuate slot having a first end and a second end, and said first end of said arcuate slot limiting said blade from movement beyond said extended position.

10. A knife as defined in claim 1, further comprising a coil spring encircling said plunger.

11. A folding knife, comprising:

a handle defining a blade cavity and a first end;

a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity;

a longitudinally extending plunger carried in said blade cavity and having a first end and a second end wherein said second end is opposite said first end;

a pivoting sleeve provided in said handle, said sleeve receiving and longitudinally slidably carrying said first end of said plunger for longitudinal movement of said plunger relative to said sleeve as said blade moves between said retracted and extended positions; and

said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.

12. (Currently Amended) A folding knife, comprising:

a handle defining a blade cavity and a first end;

a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity; and

a longitudinally extending plunger assembly configured to maintain the blade in the extended position while the blade is in the extended position, and to retain the blade in the retracted position while the blade is in the retracted position, the plunger assembly having:

a first end slidably and pivotably connected to said handle for longitudinal and/or pivotal movement of said plunger assembly relative to said handle as said blade moves between said retracted and extended positions, ~~wherein said first end is free from lateral movement relative to said handle, as said blade moves between said retracted and extended positions;~~ and

a second end opposite said first end, said second end of said plunger assembly pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.

13. A knife as defined in claim 12, wherein said blade includes said first end of said blade having an extension projecting outwardly from said handle when said blade is in said retracted position; said extension defining an extreme edge portion with a plurality of ridges thereon for contact by a user when moving the blade from said retracted position to said extended position.

14. (Currently Amended) A knife as defined in claim 12, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger assembly when said safety member is in said locking position for contacting and restraining movement of said plunger assembly when said blade is in said extended position, to thereby lock said blade in said extended position.

15. (Currently Amended) A knife as defined in claim 12, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion

projecting into the path of movement of said plunger assembly for contacting said plunger.

16. A knife as defined in claim 12, further comprising said handle defining a first side and a second side opposite said first side and a belt clip connected to said handle adjacent one of said first and second sides of said handle.

17. (Currently Amended) A knife as defined in claim 12, wherein said second end of said plunger assembly includes a clevis having a pin pivotally connected to said first end of said blade.

18. A knife as defined in claim 12, wherein said first end of said blade includes an arcuate slot and wherein said handle includes a pin carried in said arcuate slot, said arcuate slot having a first end and a second end, and said first end of said arcuate slot limiting said blade from movement beyond said extended position.

19. (Currently Amended) A knife as defined in claim 12 wherein the plunger assembly comprises a plunger and, ~~further comprising~~ a spring operatively interconnecting said plunger to said handle.

20. A knife as defined in claim 19, wherein the spring exerts a pivoting force upon the blade in response to the spring being deformed, the spring being maximally deformed when the blade is pivoted to an intermediate point between the extended position and retracted position, thereby causing the spring to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position beyond the intermediate point.

21. (Currently Amended) A knife as defined in claim 12 wherein the plunger assembly comprises a plunger and, ~~further comprising~~ a coil spring operatively interconnecting said plunger to said handle.

22. A knife as defined in claim 21, wherein the coil spring encircles said plunger.

23. (Currently Amended) A folding knife, comprising:
a handle defining a blade cavity and a first end;
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity; and

a plunger including a spring, the plunger pivotally connected to the blade at a first end, and operatively coupled to the handle at a second end, the spring being maximally deformed when the blade is pivoted to an intermediate point between the extended position and retracted position, thereby causing the spring to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position beyond the intermediate point.

24. A knife as defined in claim 23, wherein said blade includes said first end of said blade having an extension projecting outwardly from said handle when said blade is in said retracted position; said extension defining an extreme edge portion with a plurality of ridges thereon for contact by a user when moving the blade from said retracted position to said extended position.

25. A knife as defined in claim 23, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into a path of movement of said plunger when said safety member is in said locking position for contacting and restraining movement of said plunger when said blade is in said extended position, to thereby lock said blade in said extended position.

26. A knife as defined in claim 23, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

27. A knife as defined in claim 23, further comprising said handle defining a first side and a second side opposite said first side and a belt clip connected to said handle adjacent one of said first and second sides of said handle.

28. (Currently Amended) A knife as defined in claim 23, wherein ~~an~~ the first end of said plunger includes a clevis having a pin pivotally connected to said first end of said blade.

29. A knife as defined in claim 23, wherein said first end of said blade includes an arcuate slot and wherein said handle includes a pin carried in said arcuate slot, said arcuate slot having a first end and a second end, and said first end of said arcuate slot limiting said blade from movement beyond said extended position.

30. (Currently Amended) A folding knife comprising:
a handle;
a blade pivoted on said handle via a blade pivot for movement between stowed and deployed conditions relative to the handle; and
a plunger including an elongate, force-transmitting biasing spring, where the plunger is operatively coupled with the blade for orbital movement of a portion of the plunger about the blade pivot, and the spring is operatively interposed between said handle and said blade, where said spring exhibits both a rise and a fall in the biasing force carried through the spring when the blade is moved from one of the stowed condition and the deployed condition to the other of the stowed condition and the deployed condition.

31. The knife of claim 30, wherein the mentioned rise and fall in biasing force occur such that the rise in the biasing force occurs before the fall in the biasing force.

32. (Cancelled)

33. (Currently Amended) A folding knife comprising:

a handle;

a blade pivoted on said handle for movement between stowed and deployed conditions relative to the handle;

an elongate, force-transmitting biasing spring operatively interposed between said handle and said blade, said spring, with movement of said blade generally from either one of such two conditions toward the other condition, exhibiting both a rise and a fall in the biasing force carried through the spring;

a plunger operatively interconnecting the spring to the blade; and

a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

34. (Currently Amended) A folding knife comprising:

a handle;

a blade pivoted on said handle for movement between stowed and deployed conditions relative to the handle; and

an elongate, force-transmitting biasing spring having an effective length, the spring operatively attached to ~~between~~ said blade and said handle, where said spring exhibits both an increase and a decrease in the effective length of the spring, as said blade is moved generally from one of the stowed condition and the deployed condition toward the other condition, wherein the spring exhibits the decrease in effective length, as said blade is moved from one of the stowed and the deployed conditions toward an intermediate point between the stowed and the deployed conditions, followed by the

increase in effective length, as said blade is moved from the intermediate point toward the other condition.

35. (Cancelled)

36. (Currently Amended) The knife of claim 34 wherein the operative attachment of said spring to said blade comprises, ~~further comprising a plunger operatively interconnecting the spring to the blade.~~

37. A knife as defined in claim 36, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

38-44. (Cancelled)

45. (Currently Amended) A knife comprising:

a handle;

a blade pivotally held in the handle to move about a blade pivot point, such that the blade moves between a stowed position and a deployed position; and

a plunger including a spring, ~~where the plunger is coupled to~~ between the handle and the blade such that a portion of the plunger remains a fixed distance from the blade pivot point, and where the spring operates on the blade to maintain the blade in the stowed position when the blade is moved to the stowed position, and operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position.

46. (Cancelled)

47. A knife comprising:

a handle;

a blade pivotally held in the handle to move between a stowed position and a deployed position;

a spring operatively interconnecting the blade to the handle, wherein the spring operates on the blade to maintain the blade in the stowed position when the blade is moved to the stowed position, and operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position;

a plunger operatively interconnecting the spring to the blade; and

a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

48. A knife comprising:

a handle;

a spring movably held in the handle; and

a blade pivotally held in the handle by a pin, the blade pivotal between a stowed position and a deployed position,

wherein the spring is operatively connected to the blade at a point that moves with the blade as the blade moves from the stowed position to the deployed position, and wherein the spring is operatively connected to the blade to exert a directional force on the blade that is at least approximately in line with the pin when the blade is in at least one position as it moves from the stowed toward the deployed position, but while the blade is closer to the stowed position than to the deployed position.

49. The knife of claim 48, further comprising a plunger operatively interconnecting the spring to the blade.

50. A knife as defined in claim 49, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

51. (New) A knife as defined in claim 34, wherein the operative attachment of said spring to said handle comprises a pivotal connection between said spring and said handle.

52. (New) A folding knife comprising:
a handle;
a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, between a retracted position and an extended position;
biasing means for holding the blade in the retracted position in the handle while the blade is in the retracted position and for biasing the blade toward the extended position relative to the handle when the blade is moved from the retracted position past a point of maximum bias toward the extended position; and
moving means for moving the blade from the retracted position to the extended position with one hand while holding the knife with the one hand.

53. (New) The folding knife of claim 52 wherein the biasing means comprises:
a plunger having a first end operatively coupled to the blade; and
a pivotal connector coupled to the handle and to which a second end of the plunger is slideably coupled.

54. (New) The folding knife of claim 52 wherein the moving means comprises at least one of a plurality of ridges formed on the tang of the blade, a plurality of directional saw-like teeth formed on the tang of the blade, or a pin coupled to an upper portion of the blade.

55. (New) A folding knife comprising:
a handle;
a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position;

a single biasing element for applying a rotating bias to the blade, the biasing element including a spring;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade, the biasing element arranged such that the spring thereof increases in tension to a point of maximum tension as the blade is moved through the arc from the retracted position toward the extended position, then decreases in tension as the blade continues past the point of maximum tension toward the extended position.

56. (New) The knife of claim 55 wherein the single biasing element lies in a plane defined by the arc of the blade.

57. (New) The knife of claim 55, further comprising an engagement element for engagement by a finger of a user's hand to move the blade from the retracted position toward the extended position while the knife is held in the user's hand.

58. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.

59. (New) The knife of claim 58 wherein the biasing element is arranged such that the spring thereof increases in tension to a point of maximum tension as the blade is moved through the arc from the retracted position toward the extended position, then decreases in tension as the blade continues past the point of maximum tension toward the extended position.

60. (New) The knife of claim 58 wherein the contact element comprises at least one of a plurality of ridges formed on the tang of the blade, a plurality of directional saw-like teeth formed on the tang of the blade, or a pin coupled to an upper portion of the blade.

61. (New) The knife of claim 58 wherein the contact element comprises a feature formed on the tang of the blade.

62. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring, configured to apply a closing force to the blade while the blade is in the retracted position;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.

63. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring, configured to resist rotation of the blade toward the extended position while the blade is in the retracted position;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.

64. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring, configured to apply no opening force to the blade while the blade is in the retracted position;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.